DOCUMENT RESUME

ED 449 560 EA 030 848

AUTHOR	Duke, Daniel L.
TITLE	A Design for Alana: Creating the Next Generation of American Schools. Fastback 468.
INSTITUTION	Phi Delta Kappa Educational Foundation, Bloomington, IN.
ISBN	ISBN-0-87367-668-8
PUB DATE	2000-00-00
NOTE	53p.; The Fastback series is published every spring and fall; current series editor is Donovan R. Walling. Sponsored by the Evansville, Illinois Chapter.
AVAILABLE FROM	Phi Delta Kappa International, P.O. Box 789, Bloomington, IN 47402-0789. Tel: 800-766-1156 (Toll-free); Web site: http://www.pdkintl.org.
PUB TYPE	Opinion Papers (120)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Change Strategies; *Educational Change; *Educational Trends; Elementary Secondary Education; Excellence in Education; Long Range Planning; *School Restructuring; Strategic Planning

ABSTRACT

This booklet recounts an educator's musings on what education could be for his 2-year-old granddaughter. It describes the shift in pedagogical paradigms away from the diagnostic-prescriptive approach, with its focus on identification of problems and deficiencies, toward education design, with its concern for human potential and human differences. The text centers on four ideas: (1) children are learning what they are expected to learn; (2) diversity and the schools' approaches to diversity; (3) choice and the consequences that arise from choices; and (4) the importance of formulating a new design for learning. It examines some of the traditional assumptions of education, such as the idea that a school's central activity is teaching; the purpose of teaching is the acquisition of knowledge; students should be graded on how well they acquire knowledge; all students must acquire the same basic knowledge in the same amount of time, in the same sequence and combination, and in the same place; and the needs of all students can be accommodated under one roof. The booklet closes with a plea that educators design learning networks that incorporate certain premises, such as the notion that learning requires feedback on both the application and the acquisition of knowledge. (RJM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

EA

468

FASTBACK

ED 449 560

A Design for Alana: Creating the Next Generation of American Schools

BEST COPY AVAILABLE

Daniel L. Duke

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

D. Walling

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

EA 030 848

PHI DELTA KAPPA EDUCATIONAL FOUNDATION

Daniel L. Duke

Daniel L. Duke has been a professor of educational leadership for more than a quarter-century. Currently, he is director of the Thomas Jefferson Center for Educational Design, an interdisciplinary organization devoted to the design of new learning environments. Duke began his career as a high school history teacher and administrator. He also served on the faculties of Lewis and Clark College and Stanford University and as chair of the University of Virginia's Department of Educational Leadership and Policy.

Duke has written or edited 20 books and nearly 150 articles on a variety of topics, including the reform of secondary education, innovative learning environments, education leadership, school safety, and organizational change. He has consulted with more than 200 school systems, government agencies, and institutions of higher education in the United States and abroad. He has served as president of the University Council for Educational Administration and editor of the Series on Contemporary Educational Leadership for the State University of New York Press.

Duke received his bachelor's degree from Yale University and his doctorate from the State University of New York at Albany. He lives atop Pantops Mountain in Charlottesville with his wife and children and awaits Thomas Jefferson's return.

Series Editor, Donovan R. Walling

A Design for Alana: Creating the Next Generation of American Schools

by
Daniel L. Duke

ISBN 0-87367-668-8
Copyright © 2000 by the Phi Delta Kappa Educational Foundation
Bloomington, Indiana

This fastback is sponsored by the
Evansville Indiana Chapter of
Phi Delta Kappa International,
which made a generous contribution
toward publication costs.

Table of Contents

Introduction 7

Educating Alana 8

A Shift in Pedagogical Paradigms 12

Understanding What the Public Wants 17
- Accountability 17
- Diversity 21
- Choice 24
- In Search of New Designs for Learning 27

A Time for Testing Assumptions 29
- The Central Activity of School Is Teaching 30
- The Purpose of Teaching Is the Acquisition of Knowledge 30
- Students Must Be Graded on How Well They Acquire Knowledge 31
- All Students Must Acquire the Same Basic Knowledge 32
- All Students Must Acquire Basic Knowledge in the Same Amount of Time 34
- All Students Must Acquire Basic Knowledge in the Same Sequence and Combination 35

All Students Must Acquire Basic Knowledge in the Same Place 36
The Needs of All Students Can Be Accommodated Under One Roof 38

The Need to Design Systems 41
A Design for a Learning Network 43
Limitless Possibilities 47

Introduction

The arrival of a new millennium is a perfect occasion to reflect on the future. But which future? To an astrophysicist, the future may extend thousands of years. To a cancer patient, a few months. When I think about the future, particularly the future of education, I find it very difficult to project beyond the lifetime of my two-year-old granddaughter, Alana. The image of Alana eventually attending school and interacting with teachers and peers provides the requisite level of personal concern to drag me from the here-and-now into a future of which I may not be a part.

In considering Alana's schooling, I face two choices. I can draw on my knowledge of current trends and education history to craft a picture of what schools and schooling probably will look like over the next decade and a half. A betting person, after all, would wager that tomorrow's schools are apt to resemble today's. Or I can cast predictability to the wind and dream of what Alana's education *could be*. I find the latter far more appealing than the former, and so I ask the reader to indulge a grandfather's musings about the education he desires for his granddaughter.

Educating Alana

When I think about Alana's education, it is interesting to note what does *not* come to mind. I do not think about standards, benchmarks, or the need to raise the bar on achievement. Nor do I think about state and national tests and comparisons of student achievement in different countries. What comes to mind, instead, are things I want Alana to learn, experiences I hope she will have, and issues with which she should grapple. I also reflect on the settings in which she will learn, the conditions under which she will learn, and the people with whom and from whom she will learn.

When I think about what Alana will learn, for example, I want her to learn to love learning, to face the world with fascination rather than fear. Alana should understand the values and ideals on which her country was founded and how they have been honored and dishonored over the years. She should know why some special interest groups oppose the teaching of values in public schools and why members of these groups sometimes withdraw their children and send them to private schools that teach values. I want Alana to recognize that love of country can be expressed in many different ways.

Alana, I hope, will learn to listen attentively, to speak clearly, and to understand that communication at its best is an exchange of meaning. Reading being the cornerstone of virtually all formal learning, I want Alana to read well, regard reading as one of the good life's most essential ingredients, and realize that a key to reading success is a large vocabulary. Like a painter selecting the perfect color to convey a feeling, Alana should delight in choosing just the right words to express what she is thinking.

I do not expect Alana's schooling will make her excellent, but I do expect her to be exposed to various examples of excellence, including excellence in caregiving, scientific reasoning, teamwork, artistic expression, and, not least important, teaching. Only Alana can do what is necessary to achieve excellence, but educators can help her to recognize excellence when she sees, feels, hears, or senses it.

I want Alana to appreciate what is required for civilization to make advances and to develop ideas concerning how she might contribute to her world. She will need to understand the importance of collective action and experience group endeavors. She should reflect on what is involved in getting along with people who are similar to her and those who are different. I hope she learns what it means to lead and to follow, and that she is prepared to do both.

When I consider the possible outcomes of Alana's schooling, I am crystal clear in my desire for her to graduate at least as hopeful as she began her formal education. From my vantage point, there is no greater gift of

learning than hopefulness. Curiosity runs a close second. When the process of schooling diminishes hope and dampens curiosity, it is guilty of irresponsible, if not immoral, action. It goes without saying that Alana will be much more likely to be hopeful and curious if those who teach her share these qualities.

While on the topic of teachers, I trust that Alana's teachers will care for and about her. They should know more about her than her grades and where she sits in class. They should be models of reasonableness, individuals who daily demonstrate the value of understanding first, before arriving at opinions or judgments. Alana will need constructive commentary on her work from individuals who realize that grades are rarely useful feedback. Alana should be encouraged to ask for help when she is confused or unclear. Her teachers must believe that the ability and willingness to seek help are far more important in the long run than getting right answers the first time. They should feel obliged to cultivate talent in all their students, including Alana, rather than simply designating some students as gifted or worthy of their attention.

As for where Alana will learn, I hope she will experience a variety of learning environments. Learning, after all, is not confined to classrooms and schools. It would please me if she could spend time studying at a museum, a zoo, a hospital, a place of business, and a farm. Wherever she learns, I want Alana to feel safe and secure, both physically and psychologically.

It would help if the places where Alana learns stood for something other than the quest for high test scores.

Among the values that I believe her schools should embrace and inspire are caring, honesty, respect, responsibility, and tolerance. I would not be at all disappointed if the valedictory address at Alana's graduation was delivered by the student who contributed the most to the welfare of his or her classmates.

I make no claim that the education I envision for Alana is appropriate for all young people. In truth, I'm not even sure Alana's parents would approve of everything I've suggested for my granddaughter. The reason I open this essay as I do — with a highly personal reflection — concerns the fact that we live in a time when an increasing number of parents (and grandparents) hold strong beliefs about the education they desire for their children. Yesterday's schools succeeded in producing an educated citizenry. An educated citizenry cannot be expected to remain silent concerning the type of schooling they wish for their children. How schools, particularly public schools, respond to these desires will determine, to a great extent, the nature of formal schooling in the coming decades.

A Shift in Pedagogical Paradigms

Not many years ago it would have been futile for me to advance my case for Alana's education. She would have been compelled to accept the learning opportunities she was given, opportunities that would have resembled closely those of most of her peers. While the age of customized learning is yet to dawn, many signs point in its direction. Influenced by the success of advocates for special education, parents and educators are recognizing the benefits of individual education plans that take into account the unique characteristics and needs of each student. The range of choices available to students is expanding, even as I write. Besides the options offered by private and parochial schools, public school systems now boast a variety of alternatives.

I believe these developments signal a shift in pedagogical paradigms, away from the *diagnostic-prescriptive approach*, with its focus on identification of problems and deficiencies, and toward *education design*, with its concern for human potential and human differences. This welcome shift mirrors the movement in medicine

away from isolating and treating individual ailments to holistic approaches that take into consideration all aspects of a patient's life. While the diagnostic-prescriptive approach has proven worth, it also has limitations. When practice is dictated solely by the identification of problems, practitioners can lose the capacity to recognize prospects and possibilities. Eliminating problems, rather than achieving desired targets, becomes the primary goal. Another limitation involves the sheer number of problems faced by today's educators. Confronted by a plethora of problems, many educators become overwhelmed. When the same educators think like designers and concentrate on possibilities, they become hopeful and tap creative energy. Which is better: looking into the eyes of students and seeing problems, or potential?

What does it mean to think like a designer?

First, it means listening carefully to those for whom one is designing. Expert designers usually are attuned to what is not said as well as what is said. While a few designers may gain a reputation for imposing their vision on clients, most designers care deeply about addressing the needs and desires of those they serve. They consider their primary responsibility to be translating these needs and desires into workable, affordable designs that satisfy and enrich clients.

Second, thinking like a designer entails helping clients think like designers. To do so often requires some gentle stretching of the clients' grasp of possibilities, a process that can begin with an examination of what clients take for granted. Challenging assumptions re-

quires a critical look at "the way things are" and a search for alternatives. When clients insist on recreating the familiar, it can be due to the fact they simply are unaware of other options.

A third aspect of thinking like a designer involves systemic understanding and vision. Designers do not see their designs in isolation. They attend to connections and inter-relationships, realizing that what they design will be influenced by, as well as influence, other entities.

I am daily reminded of this third aspect of design as I navigate the grounds of the University of Virginia. If ever there existed an education designer who appreciated the value of systemic thinking, it was Thomas Jefferson. Jefferson envisioned a true community of learners, or what he termed an "academical village," in which students and faculty lived and studied in close proximity. Sharing meals and informal meetings, as well as formal lessons, students and professors developed the bonds of familiarity Jefferson regarded as central to the life of the mind. Living quarters were located next to gardens so that students could engage in quiet contemplation, as well as study a variety of plants. Jefferson believed that the physical structures in which students lived and learned also could serve as teaching tools. His design for the "old grounds" included various types of architecture so that they could be studied at close range. The heart of Jefferson's university was, fittingly, the library — his world-famous Rotunda, modeled after the Pantheon in Rome.

That the University of Virginia's original design embraced systemic thinking is clear. Many people may not

realize, however, that the university was supposed to be an integral part of a greater system, a system within a system. Decades before Horace Mann's efforts to initiate common schools, Jefferson drafted a "Bill for the More General Diffusion of Knowledge," which called for a system of primary, secondary, *and* university education. A young Virginian's first three years of education were to be provided *at public expense.* Unfortunately, Jefferson was unable to convince his peers of the value of a comprehensive education system.

My primary purpose in this essay, however, is not to sing the praises of Mr. Jefferson, which others have done far more ably than I. Instead I want to examine some of the "design issues" facing today's educators. These issues concern public ideas and assumptions about schooling more than they do building materials and site locations. How educators and communities respond to these issues will determine, to a great extent, the nature of my granddaughter's schooling.

The great public ideas in education at the close of the 20th century include accountability, diversity, and choice. Our challenge is to ensure accountability, respect diversity, and provide choice while not losing sight of the fact that young people deserve to enjoy the experience of attending school. Rising to this challenge demands that educators understand the complexities of these public ideas. Such understanding means listening to the public with a designer's ear. But listening is not enough. Educators also need to challenge assumptions that have long guided practice. To do so, they must exercise a designer's imagination. But imagination must

extend beyond designing programs and schools. To address the challenges of accountability, diversity, and choice without sacrificing the quality of the experience of learning for each student will necessitate designing entire systems of education. Such a daunting undertaking means that educators must see with a designer's eye, grasping the complex relationships between and among various elements of the educational enterprise.

17

Understanding What the Public Wants

The desires of the public frequently are captured by ideas. Ideas, of course, are always floating around, set adrift by pundits, professors, and politicians. The vast majority of these ideas soon sink from sight. A few, however, refuse to disappear. They gather density, like islands building around coral reefs. We call these ideas "public ideas," terms that capture the concerns and the mood of a large number of citizens at a given point in time. It would be impossible for future historians to make sense of education today without understanding the public ideas of accountability, diversity, and choice. Similarly, any individual hoping to design contemporary learning environments must understand what these public ideas reflect of popular educational thought.

Accountability

To be a student of accountability is first to realize its ubiquity and second to grasp the fact that the term means different things to different people. Many are unaware, or have forgotten, that accountability originally

meant "to give an accounting of." In this regard, the superintendent of the Richmond, Virginia, public schools in the late 19th century was an exemplar. He personally developed the test that all high school students had to pass in order to graduate with a diploma. He also graded each test. When the tests had been graded, they were bound together in a volume, along with the superintendent's comments and corrections, and placed in the public library for all to see. In a very real sense, then, an accounting had been given of how each high school senior performed on the graduation test.

Today many people speak of accountability as if it represents a guarantee. Politicians demand that educators be accountable for standards of learning, meaning that educators ensure all students learn what they are expected to learn. Accountability, to others, implies harsh consequences for failure to deliver desired results. Schools that do not achieve expected levels of student performance must be closed or reconstituted with new personnel. Still others associate accountability with consequences of a less severe nature. Schools should be accountable for correcting the problems to which they contribute. When high school graduates cannot meet minimum expectations for entry-level college English courses, for instance, their school systems should foot the bills for remediation or correct the deficiencies themselves.

What does all the concern over accountability really mean? Is there a common thread that cuts across the various uses of the term? I believe that demands for accountability often serve as an expression of loss.

Interestingly, the word is rarely applied to the individuals who use it. Typically, we demand that others be held accountable for their actions, not ourselves. What we probably are saying is that we no longer feel in control — of our money, our children, our schools. Sensing a loss of control, we respond by insisting that those who spend our money and educate our children be subject to external review and consequences for failure to produce results. The call for accountability is, in many cases, a cry of frustration.

Those engaged in designing the next generation of schools cannot eliminate frustration or compel busy adults to play a greater role in their children's schooling. However, education designers can consider the various uses of accountability and ask those served by the schools the following questions:

- For what aspects of schooling do we expect a complete and regular accounting?
- For what aspects of schooling do we insist on guarantees?
- For what aspects of schooling do we desire warranties or corrective action at public expense?
- For what aspects of schooling do we desire severe consequences, such as legal action or school closure?

I would characterize my own view on the subject as pragmatic idealism. I recognize ideals toward which to aspire, but I realize that progress can be made only in increments. With regard to accountability, then, an ideal school system should be able to guarantee that all students learn what they are expected to learn. We do not

live in an ideal world, however. We lack the capacity to guarantee that all students will learn everything we expect them to learn. I realize how politically incorrect this statement is, but I nonetheless feel it must be made. I feel that it is reasonable to expect a full accounting of those things we cannot guarantee. Schools should be designed so they can account for the following:

- The curriculum content and learning experiences to which each student is exposed.
- The success of each student in acquiring and applying prescribed knowledge.
- The efforts made by teachers and support personnel to assist students who fail to acquire or apply prescribed knowledge.
- How public funds are allocated and with what results.

If we desire guarantees, the first step should be to guarantee that all students have a customized educational plan to guide their schooling. When, and if, we achieve this level of accountability, we can then press on to the next level — where we guarantee that instruction will be adjusted or modified for every student who fails to make progress on their plan. At present we provide such guarantees only for special education students, who are protected by federal and state law. Were we ever to reach the point where instructional adjustments were made for every student in need, then, and only then, would we be ready to move toward the ultimate level of accountability — guaranteeing student outcomes.

Diversity

The Sixties marked a watershed in American history. A society that prided itself on its capacity to assimilate people from countless cultures came under harsh attack for destroying the cultural identities and degrading the customs and mores of certain citizens, particularly the non-white and those from Third World countries. Representatives of these groups organized and became politically active. In the process the term *diversity* became a watchword of the new America.

No education designer today can deny the importance of diversity as a public idea affecting schools. Once associated primarily with urban areas, diversity has moved to the suburbs. President Clinton recently pointed to affluent Fairfax County, Virginia, as the prototype of tomorrow's school district. Fairfax schools host the very poor along with the very rich and more than a hundred language groups.

The issue that has yet to be resolved is the appropriate response to diversity by the public schools. Several possibilities exist. Public schools, for example, can strive to reduce diversity through various mechanisms of socialization. Presumably this approach characterized the response of U.S. schools to the massive waves of immigration around the turn of the previous century.

Alternatively, schools can focus on reducing the effects of diversity, rather than diversity itself. Such a policy seems to capture the spirit of many contemporary programs for at-risk minority students. Educators concentrate on teaching the skills and knowledge to allow minority students to take full advantage of the oppor-

tunities available in society. Intentional socialization and attacks on "inferior" cultures are avoided.

Other approaches involve conscious efforts to enhance diversity or the effects of diversity. In the former case, educators strive to strengthen students' understanding and appreciation of their cultural backgrounds. Such a policy is quite evident in the provincial schools of Quebec, where stress is placed on valuing French and French-Canadian culture, sometimes to the exclusion of Canadian culture. Enhancing the effects of diversity, rather than diversity itself, entails policies and practices designed to perpetuate the advantages and disadvantages of differences among students. Not allowing students with disabilities, for example, to earn an honors diploma can be one way that educators ensure that inequities based on student diversity continue.

Yet another approach is seemingly more neutral in nature. Educators acknowledge the presence of students from diverse backgrounds but take no specific action either to enhance or reduce diversity or its effects. Instead, attention is directed to managing diversity in ways that reduce the likelihood that student differences intrude on the delivery of the educational program. Proponents of diversity, of course, can argue, with some validity, that policies which purport to be neutral on diversity actually serve to benefit groups that already possess power and influence.

In any event, before decisions can be made regarding the most appropriate response to diversity, education designers must ask, Which diversity? In reality, of course, there are many forms of diversity. Some, such

as race, are beyond the ability of educators to alter. In the case of disabilities, educators may be able to alter the effects, but not the conditions themselves. Some see diversity in terms of student outcomes. They argue that what public schools really should be about is reducing diversity in academic achievement. Period.

The current movement to establish standards that must be met by all students in order to graduate can be interpreted as an effort to reduce diversity of achievement, and, indirectly, the effects of certain forms of diversity, such as socioeconomic status. However, the issue that can arise, as it did in the case of "cultural literacy," concerns the possibility that efforts to reduce diversity of academic achievement also reduce cultural diversity as well. Critics of E.D. Hirsch's "list" of essential knowledge note the predominance of contributions by dead white males. Is it possible to reduce diversity of academic achievement without also reducing cultural diversity? It is likely that this thorny question will engage the attention of education designers well into the next millennium.

Why is it necessary for all students to master the same standards? While perhaps not "politically correct," this question cannot be side-stepped by any conscientious education designer. Since Jefferson's time, many have believed that the key to a viable democracy is an educated citizenry. We have interpreted "educated citizenry" to mean the same education for the vast majority. Yet this goal has been more honored in the breach than the observance. Few would argue that all citizens have received or currently receive the same education.

Despite this fact, we seem to have a relatively strong democracy. Could it be that part of the strength of our system is precisely the fact that everyone does *not* receive the same education or master the same set of education standards? Perhaps public education is better thought of as a consequence, rather than a cause, of a strong democracy.

Choice

The rise of choice as a public idea has less to do with the nature of the choices than with who can make them. The affluent always have been able to choose — private schools, neighborhoods served by the best public schools, postsecondary schooling. Savvy about how to work the system, well-to-do parents even have been able to lobby principals in order for their children to be assigned to the best teachers. As proponents of education choice observe, there is nothing new about choice. It's just that less well-to-do parents have had limited access to choices.

Opponents of choice point out that we are naive to believe that those who favor choice really have the interests of the poor in mind. Rather, the affluent seek tax breaks and the ability to send their children to selective public schools at no expense. Fears are expressed by those who question choice that an unrestricted education market is bound to expand existing divisions between haves and have nots and leave many public schools, particularly those in inner cities, with high concentrations of low-achieving young people.

Education designers must consider whether K-12 schooling is a "special case." In other words, while we live in a democracy where freedom is associated with being able to make choices, is the right to select schools and educational programs too important or too costly to extend to all citizens? Should our fears that some parents may make unwise choices for their children lead us to limit choice to those individuals we feel are capable of making sound selections? At the beginning of the new millennium, the general public, and increasingly educators, seem to believe schools should not be regarded as a special case. The major issue that remains to be resolved is the most appropriate, or least harmful, form for choice to take.

At least four options are available: free choice, assisted choice, managed choice, and informed choice. A policy of free choice places parents completely on their own. They are free to consider any school of which they are aware and which they can afford. The law of supply and demand prevails. Education becomes an open market. *Caveat emptor.*

However, many parents lack sufficient resources to send their children to private schools or public schools accessible only by personal transportation. As a consequence, some people advocate the assisted-choice option. Under this policy, parents who meet a needs test qualify for public funds to enable them to cover tuition and transportation costs. Their children need not be disadvantaged because of inadequate family resources.

For parents who lack awareness of the education choices available to them, informed choice may be the

policy of preference. The economics of information dictates that some individuals have access to better information about education options than do other individuals. Better information enables the former to make better decisions than the latter. To level the playing field, government intervenes and provides timely and accurate information on the range of available options. Report cards on individual schools, now being issued annually in a number of states, permit informed choice by providing every parent with comparable data on student achievement, discipline, and other aspects of local educational programs.

The fourth alternative, managed choice, presents education consumers with a limited range of options. Choices, for instance, may be limited to public schools in a given locality. Private and parochial schools are excluded. Or choices may be made once students qualify by passing entrance exams or meeting other school-based requirements. Sometimes managed choice may entail other restrictions, such as racial quotas. The intent is for school officials to protect the interests of the overall system by exercising a degree of control over the choices made by individuals.

Designing schooling around policies of choice invariably forces designers to weigh collective interests against the interests of individuals. Decades ago the interests of society typically prevailed when decisions had to be made about the delivery of public education. As we enter the new millennium, however, the concern for the individual plays a greater role in such decisions. Parents are less willing to tolerate a mediocre school experience just so that their child can move along with the mainstream.

In Search of New Designs for Learning

Addressing any one of the public ideas discussed in the last section would tax the creative powers of the best education designers, but today all three ideas must be considered carefully. Designers also must understand the complex relationships between these ideas. Does accountability, for example, become less crucial when parents can freely choose where to send their children to school? Does a commitment to diversity demand that choice plans be managed, rather than permitting a completely open market to operate?

While prudence might suggest that designers concentrate on one public idea at a time, contemporary Americans tend to want it all, now! We want to have as much freedom as possible to choose where and how our children will be educated, but we also want to hold educators accountable, even if our choices are unwise or poorly made. We desire diversity when it works to the advantage of our children, but not when it means that our children are adversely affected.

As we enter the new millennium, we must ask education designers — Is it possible to ensure accountability, respect diversity, and provide a broad range of choices? More important, can this ambitious agenda be accomplished without undermining the foundations of our society or creating highly competitive learning environments that diminish youngsters' spirits and compel teachers to focus more on testing than caring? The market may serve our economic interests reasonably well, but no one ever accused the market of caring deeply for

customers. Can we respect diversity, but avoid treating students from different backgrounds like commodities to be traded or juggled in order to achieve a hypothetically perfect balance of differences? Should parents be protected from the consequences of poorly made choices? What is to happen when children suffer because their parents make bad choices?

There are, of course, no simple answers to questions such as these. What is clear, however, is that education designers must be prepared to challenge many sacred assumptions regarding how, what, where, and when we learn, if they are to create learning environments that address the complex concerns reflected in contemporary calls for accountability, diversity, and choice.

A Time for Testing Assumptions

The true character of an institution is revealed in what is taken for granted. To better grasp the challenge facing education designers, let us consider some of the assumptions that have guided and continue to guide our thinking about public schooling. These assumptions, each of which I will discuss briefly, include the following:

- The central activity of school is teaching.
- The purpose of teaching is the acquisition of knowledge.
- Students must be graded on how well they acquire knowledge.
- All students must acquire the same basic knowledge.
- All students must acquire basic knowledge in the same amount of time.
- All students must acquire basic knowledge in the same sequence and combination.
- All students must acquire basic knowledge in the same place.
- The needs of all students can be accommodated under one roof.

The Central Activity of School Is Teaching

Students come and go, but teachers remain. Teachers are adults; students are not. Teachers are paid to teach. It is not surprising that the focus of attention in schools tends to be teaching.

What if we designed schools around the notion that the central activity was learning? Such a shift might result, for example, in greater attention to the conditions necessary for effective learning. Such conditions, it should be noted, are not necessarily identical to the conditions necessary for effective teaching. Much depends, of course, on how effective teaching is defined. Which brings us to another assumption.

The Purpose of Teaching Is the Acquisition of Knowledge

We have defined learning, until recently, in terms of the acquisition of knowledge. Such a concept of learning helps explain why effective teaching often is viewed as content coverage. If students are expected to acquire lots of information, then teachers had better expose them to lots of information. Educators have been guided by an image of students that dates back more than a century. James Coleman put it best when he pointed out that teachers have believed and continue to believe that students come to school information poor and experience rich.

Times, though, have changed. Thanks to a variety of media, students often come to school with a wealth of information. What they lack, however, is experience —

the kinds of hands-on experience that students a century ago might have gained by doing various chores at home or on the farm.

Cognitive learning theory is forcing educators to reexamine their assumptions about the nature of learning, and hence of teaching. Learning today is viewed as contingent — on students' prior learning and on the situations in which students find themselves. Learning also is, to a great extent, a function of social interaction. Finally, learning is more than the acquisition of knowledge. It involves the ability to apply knowledge.

What if schools were designed to engage students in using the knowledge they acquire. Schools would need to be places where more students were more active more of the time. Every course would need a "lab" component where information and ideas could be tested and skills practiced.

Challenging one assumption, of course, can lead education designers to question others. Since the beginning of organized public schooling, teachers have relied primarily on evaluating students' ability to recall content, rather than to apply it. To embrace what we know today about cognitive learning would require placing much greater emphasis on new forms of student evaluation, especially on performance assessment.

Students Must Be Graded on How Well They Acquire Knowledge

It is difficult to find a greater mainstay of public education than grades. While many teachers complain bit-

terly about having to grade students, they also believe that grades are necessary motivators for most students. Without the prospect of a failing grade hanging over their heads, students would refuse to take their studies seriously, or so the reasoning goes. That some students fail to respond positively to learning opportunities, despite being graded, is largely ignored.

Are *some* students more likely to learn if they are not graded? Is it possible to set aside grades for students who fail to benefit from them? Schools today are unprepared, of course, to permit such differentiation. The unwillingness to consider alternatives to grades for certain students is but one of many reasons why schools do not seem to be designed for learning. Virtually everything that is done in schools is grounded in the belief that everyone must be subject to the same standards and practices.

What if we designed schools to provide timely and meaningful feedback to students on their performance? Teachers would have to discover the best ways to convey feedback to each student. Instead of dealing with all students in the same way, the goal would be to customize feedback so that each student can correct his or her learning problems. Great drama and athletic coaches operate in this way. And they do so without giving grades!

All Students Must Acquire the Same Basic Knowledge

As a society, we have insisted that all students obtain a common grounding in basic skills and core disciplines.

It is clear, however, that this ambitious goal has not been achieved, and it is unlikely to be achieved, despite the development of local, state, and federal standards. Rarely are heard voices that question the desirability, not to mention the feasibility, of requiring all students to learn the same information.

Perhaps the time has come to ask whether society is well served by a common curriculum beyond elementary school. Surely all students should be able to read, write, and speak well, but can we say with certainty that the strength of our democracy depends on all students knowing algebra or art? In truth, those that seem to benefit most from requiring all students to study the same subjects are the special interest groups that represent each of the core academic disciplines. If there is strength in diversity, perhaps this belief applies to diversity of interests as well as diversity of cultural backgrounds. Why pretend that all graduates of our high schools make use of all the knowledge to which they are exposed? Forcing students to sit through subjects in which they have little interest actually may achieve the opposite purpose from what we intend. They may learn to dislike the subject so much that years later they continue to avoid it.

We also should question the value of standards, not across the board, but in the context of secondary education. Standards certainly make sense for airline pilots, cosmetologists, and neurosurgeons. These individuals should be expected to achieve a high level of specific knowledge and skill in order to practice their professions. But secondary schooling is not professional training. Unless we want to retain or reject large numbers of

young people, we should be wary of efforts to set high standards for schooling that is required, not selected. Just because standards make sense in one sector does not mean they make sense in all sectors. Do we specify high standards for our politicians?

What if we designed schools in which all students did not have to study the same basic curriculum? Students would select several areas in which to concentrate if they opted not to study the standard range of courses. Are we better off creating conditions in which students are likely to discover interests or continuing to insist that every student has to be exposed to the same body of "essential" knowledge? Good education design demands that we consider the costs as well as the benefits of standardized learning.

All Students Must Acquire Basic Knowledge in the Same Amount of Time

Virtually everyone agrees that time and learning are directly related. So important is learning time that we insist that all students spend roughly the same time learning. Any other course of action would be inequitable, it is argued.

What if we were driven by concern for effectiveness, rather than equity? Would we continue to require those who take more time to learn to receive exactly the same amount of instruction as those who learn quickly? Of course not. By holding learning time constant for all students, and insisting on heterogeneous grouping, we encourage teachers to establish a certain pace of instruc-

tion that invariably bores some students to tears while leaving other students gasping for air. Where is the evidence that students are well served by such practice?

What if we designed schools so that students could vary the length of their learning time? Some students might spend a longer period of time in school each day, allowing them to receive more assistance and to take advantage of a supervised and well-equipped place to study. Other students might take longer to complete a particularly difficult course. Some students could work part of the day and attend school in the late afternoon or evening. Still others could continue to attend school past their 18th birthday until they completed their high school education.

Transportation has been a stumbling block to differential schedules, but some of the problems associated with cost-efficient transport to and from school can be mitigated by establishing neighborhood-based satellite learning centers. Students do not have to attend a large centralized school facility every day. Instead, they could report to the main facility several times a week for lectures, testing, and special assistance. Computers would allow them to get assignments and stay in touch with tutors while studying at satellite centers. Such an arrangement, of course, challenges assumptions about *where* students are supposed to learn. We shall consider this matter shortly.

All Students Must Acquire Basic Knowledge in the Same Sequence and Combination

Another sacred assumption that has guided education practice concerns *what* students study each year.

From elementary through high school, we believe that students are well served by studying English, history, mathematics, and science every year. Because each area of study tends to be taught as a discrete subject, we sometimes encourage teachers to work together and to develop interdisciplinary approaches. So powerful is the hold of separate disciplines, however, that these attempts to organize the curriculum around common themes or other frameworks typically disappear soon after they are initiated.

What if we designed schools so that students could choose to take four history courses or three English courses simultaneously? Is there any reason why students always must divide their attention among completely different areas of inquiry? It is even possible to envision some students spending a year off-campus, say at a zoo or science museum, studying nothing but science. Such a possibility, though, requires challenging the assumption that learning can take place only in school.

All Students Must Acquire Basic Knowledge in the Same Place

To many people, formal learning is learning that takes place in school. And school means a specific facility devoted to teaching and learning. When it comes to schools, our sense of place is profound. Our memories are deeply etched with scenes, scents, and sounds from the buildings in which we were taught. We find it difficult to separate the process of education from the

places where it occurs. Going to school means spending five days a week for a number of years in the same place.

What if we conceived of school as a variety of learning environments, rather than a building or campus? A student might spend a semester in a museum-based classroom, downtown career center, or science laboratory. Instead of constructing huge comprehensive schools designed to accommodate a thousand or more students for seven hours a day five days a week, we could develop a series of neighborhood learning centers in which students would spend the major portion of each school week. Once or twice each week they would travel to a central facility for special lectures and tutorials. The advent of computer-based communications systems and teleconferencing makes it unnecessary to require all students to be located in one place.

For decades we have operated on the assumption that it is cost-efficient to cram young people into large schools. Now we are discovering that size has its disadvantages. Crowd control and behavior problems absorb a sizable chunk of teachers' and administrators' time, thereby cutting into instructional time. School personnel find it difficult to know every student by name or differentiate unwanted strangers from students. Scheduling becomes a nightmare for students and school administrators. Transporting students to and from centralized facilities is expensive and fraught with problems. The time has come when the disadvantages of centralized learning may outweigh the advantages.

The Needs of All Students Can Be Accommodated Under One Roof

Perhaps the most sacred assumption in all of public education is the belief that the very nature of our democratic society depends on accommodating the needs of all students in the same place. Blacks waged a long struggle to gain access to white schools, demonstrating in the process their belief that separation is tantamount to inequality. More recently, advocates for special needs students have undertaken a similar struggle. While battles have been won, these campaigns also have been marked by losses. Many schools are more racially isolated than they were thirty years ago. Teaching some special needs students in regular classrooms has taxed teachers' energies and caused parents of regular education students to withdraw their children from public schools.

Those who follow social history with any care understand that strengths often become weaknesses over time. Once the comprehensive school was regarded as a bulwark of our society. As society has changed, however, the needs of young people have multiplied. Large numbers of students lack adult supervision after school. Many live in dysfunctional families. School no longer is a haven from crime and violence. As noble as the desire is to accommodate the needs of all students under the same roof, the fact is that special needs and interests may require special settings, special teachers, special programs, and special schedules. If this were not the case, why do we have public vocational-technical

schools, alternative schools, magnet schools, charter schools, and governors' schools?

A case can be made that efforts to accommodate a broad range of needy students have resulted in a diminished education experience for students "in the middle." Ironically, as we labor to place special needs students in the least restrictive environment for learning, these environments are becoming more restrictive for other students. Because the goal of inclusion is so laudable, we praise extraordinary teachers who seem to be capable of addressing the needs of all their students simultaneously. What we do not discuss are the difficulties that the majority of teachers have coping with inclusion or the high turnover rates among special education teachers.

Education design can achieve a great deal, but we must not delude ourselves into thinking that new learning environments, reorganization plans, high standards, high-stakes testing, or any of the other reforms to which we have been witness in recent years can substitute for the courage, commitment, and competence of individual educators. As we enter a new millennium, we must ask ourselves whether it is expecting too much to ask these individuals simultaneously to teach highly motivated students performing well above grade level, motivated students of average abilities, students with deficiencies in basic skills, students with serious behavior disorders and learning disabilities, and unmotivated students who would prefer to be anywhere but class. Is there anywhere else in society where one person is expected to address such a broad range of needs at the same time?

What if we designed a series of learning environments suited to the specific needs and interests of different young people? These learning environments need not preclude opportunities for young people with different needs and interests to work together on occasion, but such experiences could be of the kind where everyone can make a reasonable contribution. We have correctly determined that segregating young people on the basis of factors beyond their control is serious business. Yet anyone who looks closely at education today sees patterns of segregation, voluntary and involuntary. Programs exist for female students in math and science. Schools and classes have been created exclusively for African-American males. Alternative schools cater to students unable or unwilling to conform to normal rules and regulations. Programs and schools for gifted and talented students can be found in virtually every school system. Why have these efforts to segregate persisted, despite our supposed commitment to heterogeneity?

Eight assumptions have been identified and briefly discussed in this section. As many readers probably have realized, examples currently can be found where each of these assumptions is being challenged. I believe that these challenges represent the beginning of a reconceptualization of public schooling. As for various contemporary efforts to reinforce these assumptions — for example, statewide curriculum standards, high-stakes testing for all students, zero tolerance discipline policies — I believe they are more indicative of the last gasps of an outdated paradigm than the vanguard of a new learning society.

The Need to Design Systems

In the Sixties and Seventies educators devoted considerable energy to designing programs, particularly programs for students from disadvantaged backgrounds who were deficient in basic skills. In the Eighties and Nineties, attention shifted to designing effective schools, as educators realized that new programs were unlikely to work well if they were inserted into traditional schools. As we commence a new millennium, educators are realizing that nothing short of designing new school *systems* will do.

In the past, the diagnostic-prescriptive paradigm led educators to isolate target groups — such as minorities, disabled students, or the gifted — and to develop programs and schools to address their needs. While a reasonable and caring reaction, these efforts represented segmented thinking, the kind of thinking that produces new problems in the process of solving existing ones. Segmented thinking fails to attend to the relationships between different problems. It is of questionable value, for example, to totally reject certain approaches to learn-

ing that have served some students quite well in order to address the needs of students who have not been served well. Segmented thinking has caused some reformers to overlook the fact that traditional programs succeeded with lots of students. To some extent the current pressure for increased choice in education can be understood as a reaction by parents of students who have done well in school against reforms they see as designed primarily for underachieving and troubled students.

The extent of systemic thinking in the past has been to enshrine the belief that all students should receive the same basic education. In the new millennium, the challenge will be to design school systems that are capable of customizing learning for each student. These systems should be driven less by a concern that all students be treated the same than by a commitment to treat every young person as an individual. We hope to be treated this way when we walk into a physician's office, and it should be the modus operandus when we cross the threshold of a learning center.

Doubts regarding the need for systemic thinking should have been erased by the preceding sections of this essay. When we examined the public ideas of accountability, diversity, and choice, we learned two things. Consensus about what each idea means does not exist, and it is difficult to consider one idea without addressing the others.

Then we looked at eight assumptions around which conventional schooling has been designed. We discovered that it is difficult to challenge one assumption with-

out bringing other assumptions into question. To close this essay, I would like to engage in some systemic thinking based on a variety of promising initiatives. I shall describe a possible model for schooling in the new millennium. Since the primary focus of this system is learning and since its components are not limited to schools as we know them, I shall refer to it as a *learning network*.

A Design for a Learning Network

The learning network that I envision is based on several key beliefs that derive from the preceding analysis of assumptions about schooling.

- The central activity of a learning network is learning.
- Learning entails both the application and the acquisition of knowledge.
- Learning requires feedback on both the application and the acquisition of knowledge.
- Beyond a fundamental understanding of reading, writing, computing, and the nature of a democratic society, it is not essential for all students to learn the same knowledge.
- Students need different amounts of time to learn.
- Students benefit from exposure to a variety of learning environments.
- No single learning environment is best for all students.

The design that emerges from careful consideration of these assumptions consists of various learning

centers, each with a clear and focused mission. Before a student attends a learning center, however, he or she visits a local admissions and placement center.

Admissions and Placement Centers. To ensure that parents and students are informed about available learning options and to assist them in making sound choices, every student is assigned a learning advisor before enrolling in any learning center. The learning advisor oversees any diagnostic testing that may be called for, arranges for informational visits to various centers, and drafts an education plan for each advisee. The plan reflects the interests and goals of the student and any needs identified through the diagnostic testing process. As goals are achieved or needs shift, changes can be made to the plan. The learning advisor continues to work with students and monitor their progress for the duration of their participation in the learning network. This period may extend from age four until well after 18, depending on how long it takes to complete the education plan. The learning advisor makes referrals to specialists, if such contacts are required, and maintains students' permanent records.

Early Childhood Centers. For most students, the first assignment in the learning network is to an early childhood center near their home. In these settings, designed to feel home-like and cozy, youngsters receive instruction in reading, writing, and other basics. The length of time that students remain at the early childhood center depends somewhat on their academic progress and social maturation. When students master basic skills and demonstrate the capacity to work on their own for

relatively long periods of time and to study with more than one instructor, they may begin work at an academic center.

Academic Centers. Resembling comprehensive schools in some respects, academic centers house instructors for a variety of academic subjects. These highly trained individuals, some of whom may operate as private practitioners or independent contractors, offer courses and independent study opportunities for older students. Courses look more like college offerings than like typical middle and high school selections. Students attend courses once or twice a week to receive and discuss new material. They also schedule tutorials with their instructors. The remainder of each week is spent at neighborhood-based community learning centers.

Community Learning Centers. These smaller, more personalized environments, most of which are within walking distance of students' homes, provide settings in which students can undertake course assignments and projects under the supervision of learning specialists. These individuals possess general expertise in research design, writing, organization of information, study skills, and the like. They are in constant contact with instructors at the academic centers to which their students are assigned. If students require assistance that cannot be provided by their learning specialist, they can e-mail instructors at their academic center or schedule a tutorial. Every student has a workstation with a computer and a private account at the community learning center. These facilities are available from early morning to late evening and can be used by adults as well as by teenagers.

Transition Centers. We are a mobile society. Schools must continually absorb both recent immigrants and young people moving from other parts of the nation. In certain instances, these students are not prepared to function effectively in regular courses and programs. They may require intensive language development, in the case of immigrants from non-English-speaking countries, or interventions to address specific learning problems or knowledge deficits. At the transition center, young people work exclusively on acquiring the skills and knowledge to enable them to function effectively at an early childhood, academic, or community learning center.

Satellite and Specialty Learning Centers. Communities are full of organizations that are ideal hosts for satellite or specialty learning centers. We already have examples of classrooms in corporate business parks, museums, shopping malls, and zoos. A well-designed learning network should offer students opportunities for specialized study in these and other nonschool settings both for extended periods of time and for brief visits. What better site, for example, for the study of zoology than a zoo? A shopping mall is an ideal setting for a marketing class. If we recognize that there are alternative paths to knowledge, then a semester or year at a nonschool learning environment may be just the right option for certain students who fail to "connect" with meaningful education goals at an academic center where they are exposed to a broad range of curricular offerings. Teachers, too, may benefit from periodic transfers to nonschool learning environments.

Residential Learning Centers. Time was when few people would have been so bold as to recommend publicly supported residential schools. Times change, however, and the need for such facilities is evident. For certain young people, their only reasonable chance to reach adulthood and to make a contribution to their society rests with removal from dysfunctional homes and neighborhoods. Residential learning centers offer round-the-clock support and structure, regular meals, and caring adult role models.

Educational Partnerships. For certain students who learn quickly or seek advanced learning opportunities, taking courses at, or early admission to, a community college or four-year college may be in order. Thinking systemically breaks down traditional barriers to such arrangements, barriers that typically involve the flow of tuition funds and "creaming" the brightest students from regular high schools. Educators in the new millennium must act on the best interests of individual students, rather than treating them as pawns in an economic or political chess match.

Limitless Possibilities

When the focus is squarely on learning and how best to encourage and support it, the possibilities expand far beyond what our contemporary schools offer. Besides the components described above, a learning network may offer virtual learning centers, youth service centers, adult education centers, apprenticeship programs, and foreign study. Most of the options that have been discussed in

this section already exist in certain school districts. The problem is that they have not been developed as part of an overall, or systemic, design. They emerge on an "as needed" basis rather than as components of a coordinated continuum of learning opportunities. Consequently, problems with the calculation of graduation credits, transportation, technical support, and sharing limited resources must be confronted on a continuing basis. The great promise of the new millennium is that we have learned enough from more than a century of experimentation with public schooling to recognize the value and the necessity of customized learning and systemic thinking.

I am optimistic that we can design learning networks to address our concern for accountability, diversity, and choice while ensuring that young people will be cared for and enjoy learning. The essence of a democratic society does not require compelling everyone to choose the same path, but enabling people who choose different paths to live together peacefully and productively. The "one best system" for the new millennium will be the system that offers my granddaughter and her peers the broadest and best designed series of learning options.

Recent Books Published by the Phi Delta Kappa Educational Foundation

Vouchers, Class Size Reduction, and Student Achievement
Alex Molnar
Trade paperback. $12 (PDK members, $9)

Torsten Husén: Conversations in Comparative Education
Arild Tjeldvoll
Cloth with dust jacket. $49 (PDK members, $38)
Trade paperback. $24 (PDK members, $18)

French Elementary Education and the Ecole Moderne
William B. Lee and John Sivell
Trade paperback. $12 (PDK members, $9)

Readings on Leadership in Education
From the Archives of Phi Delta Kappa International
Trade paperback. $22 (PDK members, $16.50)

Profiles of Leadership in Education
Mark F. Goldberg
Trade paperback. $22 (PDK members, $16.50)

Use Order Form on Next Page
Or Phone 1-800-766-1156

A processing charge is added to all orders.
Prices are subject to change without notice.

Complete online catalog at http://www.pdkintl.org

Order Form

SHIP TO	
STREET	
CITY/STATE OR PROVINCE/ZIP OR POSTAL CODE	
DAYTIME PHONE NUMBER	PDK MEMBER ROLL NUMBER

QUANTITY	*TITLE*	*PRICE*

ORDERS MUST INCLUDE PROCESSING CHARGE

Total Merchandise	*Processing Charge*
$3 to $25	$3
$25.01 to $100	$5
Over $100	5% of total

Special shipping available upon request.
Prices subject to change without notice.

SUBTOTAL	
Indiana residents add 5% Sales Tax	
PROCESSING CHARGE	
TOTAL	

☐ Payment Enclosed (check payable to Phi Delta Kappa International)

Bill my ☐ VISA ☐ MasterCard ☐ American Express ☐ Discover

ACCT # _____ DATE _____

EXP DATE ___/___ SIGNATURE _____

Mail or fax your order to: Phi Delta Kappa International,
P.O. Box 789, Bloomington, IN 47402-0789. USA
Fax: (812) 339-0018. Phone: (812) 339-1156

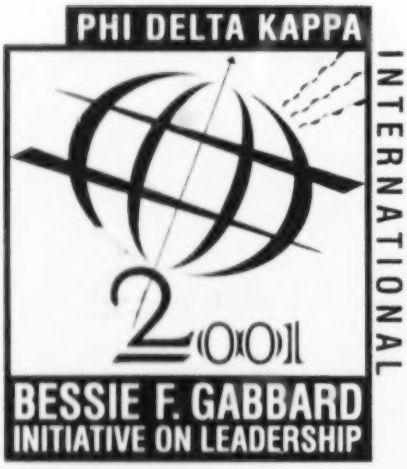
For fastest service, phone 1-800-766-1156 and use your credit card.

Phi Delta Kappa Fastbacks

This series, published each fall and spring, offers short treatments of a variety of topics in education. Each fastback is intended to be a focused, authoritative work on a subject of current interest to educators and other readers. Since the inception of the series in 1972, the fastbacks have proven valuable for individual and group professional development in schools and districts and as readings in undergraduate and graduate teacher preparation classes. More than 450 titles in the series have been published, and more than eight million copies have been disseminated worldwide.

For a current list of available fastbacks and other publications, please contact:

Phi Delta Kappa International
P.O. Box 789
Bloomington, IN 47402-0789 U.S.A.
1-800-766-1156
(812) 339-1156
http://www.pdkintl.org



Bessie F. Gabbard Initiative on Leadership

The Bessie F. Gabbard Initiative on Leadership in Education for the 21st Century, dubbed the 2000-2001 Celebration for short, reaffirms the central importance of the Phi Delta Kappa tenet of leadership. Bessie F. Gabbard, the "First Lady" of PDK and a member and longtime chair of the board of governors of the Phi Delta Kappa Educational Foundation, provided the impetus for this initiative, which will focus the energies of PDK members and staff during the two years of transition to the new millennium. During this 2000-2001 Celebration, special attention will be paid to leaders and leadership in education with a particular focus on PDK's traditional advocacy on behalf of the public schools.

ISBN 0-87367-668-8

The girls' basketball team at Sacred Heart Academy in Cleveland, Ohio, strikes a pose in this early photograph, circa 1930.

Courtesy of the Cleveland Public Library Photograph Collection.